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Hobo Spider
Eratigena agrestis

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What You Should Know

- Hobo spiders and related spiders build funnel-webs to catch prey.
- In Utah, hobo spiders are frequently found indoors from August through October.
- Recent scientific evidence suggests that hobo spiders do not have a necrotic bite.
- The primary spider of health concern in Utah is the western black widow spider.
- For more detailed information about the hobo spider, visit this page.

The hobo spider, *Eratigena agrestis*, is a member of the funnel-web spider family Agelenidae (Fig. 1). Funnel-web spiders are long-legged, swift-running spiders that build funnels or tube-shaped retreats in turf, log piles, rock piles, and other areas around the home and yard. The hobo spider is native to Europe, but was detected in the Pacific Northwest in 1936. Over time, the hobo spider migrated to other parts of the western United States. This species is distributed throughout northern Utah. Hobo spiders are non-aggressive and unlikely to bite. Their old common name, "aggressive house spider," originated from a mis-interpretation of the species name "agrestis" which actually means "of the field," describing their natural, outdoor European habitat.

Fig. 1. Adult female hobo spider with egg sac (Ryan S. Davis, Utah State University Extension).

Description

There are many spiders that resemble the hobo spider and non-experts are unlikely to properly identify them. Suspected hobo spiders should be verified by a qualified entomologist or arachnologist who can examine the microscopic characters necessary to determine the species. For the homeowner or non-expert, spiders with banding around the legs can be eliminated as a potential hobo spider.

Life Cycle

The exact length of the hobo spider life cycle in Utah is not known, but it is suspected that hobos take 2 years to develop into adults.

Eggs are deposited in the fall and hatch in late spring. Juvenile hobo spiders overwinter before reaching maturity the following year. Males seek females for mating from August through October and this is when they are most frequently encountered in homes. Mated females begin laying egg sacs in September, with one to four egg sacs produced. Male spiders die after mating.

Habitat

Hobo spiders prefer habitats that have holes, cracks, or recesses. Although some have been observed a few feet above floor level, most are seen running about on the floor or in webs close to the ground or vegetation.

Common outdoor habitats include rock retaining walls, landscape rocks, cracks in soil or concrete, vegetation, near and around foundations, window wells, irrigation boxes, stacks of lumber, firewood, and bricks. Indoors, the hobo spider is typically found running across the floor or near floor level. Individuals do not climb up vertical surfaces very well, although they will sometimes be found in tubs and sinks. These spiders are seeking moisture and, once getting into the tub or sink, cannot easily crawl back out. Wandering males and females may occasionally become trapped in clothing/ laundry, bedding, shoes, children's toys, or other objects on the floor.

Medical Significance

Recent scientific evidence suggests that the hobo spider is not a human health threat and does not have a necrotic bite. The evidence *against* hobo spiders having a necrotic bite is listed below. If you suspect you have been bitten by a hobo spider, or any spider, insect, etc., the area should be carefully monitored as bacterial infection could occur after any skin puncture. Treatment decisions should be left to the discretion of your physician, dermatologist, or other medical expert. If you see the spider that bit you, please collect that specific spider and have it identified by a professional. The presence of hobos in the home does not implicate that spider, especially considering majority of homes in northern Utah have hobo spiders present at some time of the year.

- Darwin Vest (1987) showed preliminary evidence that hobo spider bites caused necrotic lesions in four New Zealand white rabbits. In the same study five rabbits did not develop lesions. Vest's sample size is too low to draw definitive conclusions from. Results from this study have not been successfully replicated.
- Results from studies conducted on rabbits cannot be directly extrapolated to humans.
- People living in states where hobo spiders have not been documented have been misdiagnosed by physicians as having bites from hobo spiders (Vetter et al. 2003).
- Hobo spiders occurring in Europe have bitten humans without adverse effects (Preston-Mafham 1984).
- An analysis of hobo venom between hobo spiders from the United Kingdom and the U.S. showed no significant differences in venom composition; results are in conflict with the idea that US hobo venom is different than U.K. hobo venom (Binford 2001).
- Reports of "spider bites" are greatly influenced by the fact that most people fear spiders and because of this fear most unknown bites are blamed on spiders (Anderson 1982).
- There is a severe lack of ***confirmed*** hobo spider bites despite large domiciliary populations in northern Utah.
- Russell and Gertsch (1983) examined 600 suspected spider bites, and found that 80% were caused by arthropods other than spiders or by other diseased states.
- There are many medical conditions which can manifest as necrotic lesions or skin ulcers, including bacterial, viral and fungal infections, drug reactions, diseases such as diabetes, or other arthropod bites and more (Vetter 2004).

Hobo Spider Management

Most homes in northern Utah will have at least one hobo spider throughout the year. Hobo spiders, like other spiders, should be considered beneficial, but sometimes their presence is unwanted. Spiders in and around the home can be minimized using a combination of all or some of following techniques.

Exclusion

- Replace door sweeps on all outside doors (probably the single most important thing you can do for hobo spider control). The sweep must come in complete contact with the ground surface and both sides of the doorway. Even a very tiny gap between the sweep and threshold/ground is enough space for spiders and other pests to enter the home.
- Seal all foundation cracks and crevices leading into the home with silicon caulking or appropriate sealant.
- Install weather stripping around doors and windows, especially all doors leading to the outside. This includes the garage door.
- Keep window screens in good repair.

Cleaning and habitat modification

- Vacuum regularly. Spiders often come inside to find mates, but they stay inside because they can find food (other insects). By vacuuming regularly and implementing the exclusion techniques mentioned in points 1-3, you can minimize insects (spider food) in the house and keep spider populations down naturally.
- Spiders, webs and egg sacs can also be sucked up (hobo egg sacs are typically found outside).

Minimize clutter

- Spiders love secluded places to hide and lay egg sacs. If you have a lot of boxes or stuff lying around the home, especially in the basement, garage, or other storage areas, those are perfect places for spiders to hide and lay eggs.
- Outside the home, woodpiles, rock borders, lawn ornaments, etc., can all provide suitable places for hobos to hide and to lay egg sacs.
- Simplify the environment by putting items in sealable storage bins, moving rock and log piles away from the home, etc.

Change exterior lighting

- Insects are attracted to "normal" exterior lights at night. The increase in insects (spider food) will also attract an increased number of spiders looking for food. To minimize the number of insects attracted to the house, replace the regular light bulbs with sodium vapor lights (or yellow bulbs) which are less attractive to insects.

Monitor/trap

- Sticky traps. The standard sticky traps you purchase at the lawn and garden shop placed around the baseboards of the home will tell you which spiders are present (if they are ground dwelling spiders), and can capture hobos. Traps can be discarded and new ones set out as they become full.
- Traps can also tell you where spider or insect "hot-spots" may be in the home, or give you information as to where the spiders may be entering the home. Control efforts can then be concentrated in those areas.
- Traps should be folded and placed firmly against the baseboards where children and pets cannot access them.
- During "hobo season" consider placing one or two traps in every room, and on either side of the bed against the baseboards to increase trapping/control.

Fig. 2. Typical web form of a funnel web spider. (Image courtesy of T&J Enterprises (http://www.tandjenterprises.com/spiders.htm).

Fig. 3. Adult male hobo spider (Ryan S. Davis, Utah State University Extension).

Chemical

- In secluded areas, crawl spaces, cracks and crevices, or wall voids (areas where people won't come in contact with chemicals), a pyrethroid/silicate dust formulation can provide some control.
- Liquid or dust insecticides may be applied directly to webs (of any spider).
- Non-residual aerosol sprays can be used to directly spray spiders; spiders not directly contacted with this treatment will not die.
- If an exterior perimeter treatment is desired, insecticide sprays are best timed for when hobo egg sacs are hatching, usually from mid May to

Mid June in Utah.
- Suspension concentrates, capsule suspensions/ microencapsulated and wettable powder formulations work best for spiders.

General Spider Bite-Prevention Tips

- In August through October, there is usually an influx of hobos and other spiders entering the home. This time of year it is advised to remove the bedskirt from the bed and pull the bed about 8 inches out from the walls. This will help keep wandering hobos out of your bed and minimize the chance of rolling over on one during the night.
- Take caution when picking clothes up off the floor or from laundry baskets. Spiders hiding in these clothes can be mistakenly grabbed, resulting in a bite.
- Keep children's toys, clothes, blankets, etc., off of the floor where spiders can hide under them.

For maximum control, combine all or some of the techniques listed above. Exclusion is the primary way to manage hobo spiders.

References

Akre, R.D. and Catts, E.P. 1990. Spiders. Washington State University Cooperative Extension, EB 1548, 8p.

Akre, R.D. and Myhre, E.A. 1991. Biology and Medical Importance of the Aggressive House Spider, Tegenaria agrestis, in the Pacific Northwest (Arachinida: Araneae: Agelenidae). Melandria, Vol. 47:1-30.

Anderson, P.C. 1982. Necrotizing spider bites. American Family Physician, 26:198-203.

Binford, G.J. 2001. An analysis of geographic and intersexual chemical variation in venoms of the spider Tegenaria agrestis (Agelenidae). Toxicon, 39:955-968.

Binford, G.J. and Roe, A. 2006. Personal communication via email.

Fisher, R.G., Kelly, P., Krober, M.S., et al. 1994. Necrotic arachnidism. Western Journal of Medicine, 160:570-572.

Jones, D. 1983. The Country Life Guide to Spiders of Britain and Northern Europe. London: Country Life Books.

Preston-Mafham, R. and Preston-Mafham, K. 1984. Spiders of the World. Facts on File: NY, 191p.

Roberts, M.J. 1985. The Spiders of Great Britain and Ireland. Atypidae to Theridiosomatidae. Harely:Essex, England, 1:229p.

Russell, F.E. and Gertsch, W.J. 1983. For those who treat spider or suspected spider bites (letter). Toxicon, 21:337-339.

Sadler, M.A., Force, R.W., Solbrig, R.M., et al. 2001. Suspected Tegenaria agrestis envenomation. Annals of Pharmacotherapy, 35:1490-1491.

Vest, D.K. 1987. Envenomation by Tegenaria agrestis (Walckenaer) spiders in rabbits. Toxicon, 25:221-224.

Vest, D.K. 1987. Necrotic arachnidism in the northwest United States and its probable relationship to Tegenaria agrestis (Walckenaer) spiders. Toxicon, 25:175-184.

Vetter, R.S., Roe, A.H., Bennett, R.G., et al. 2003. Distribution of the medically-implicated hobo spider (Araneae: Agelenidae) and a benign congener, Tegenaria duellica, in the United States and Canada. Journal of Medical Entomology, 40:159-164.

Vetter, R.S. 2004. Causes of Necrotic Wounds other than Brown Recluse Spider Bites. University of California Riverside. http://spiders.ucr.edu/necrotic.html. Last accessed August 19, 2011.

Vetter, R.S. and Isbister, G.K. 2004. Do Hobo Spider Bites Cause Dermonecrotic Injuries? Annals of Emergency Medicine. December, 44:6.